

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1, 4-6, are allowed over the prior art of record.

2. Following is an examiner's statement of reasons for allowance:

In regards to closest prior art of record, Gao et al. (US Pat. No. 6876751 B1), wherein Gao discloses that while suppressing acoustic feedback in a hearing aid by mean of an adaptive filter (abstract), the DC offset is estimated by averaging the filter coefficients of the adaptive filter and then the estimated DC offset is removed from the filter coefficient and in order to prevent the DC offset from building up in the adaptive filter coefficients. The removal of the DC offset is carried out at predetermined intervals (specifically presents an interval of every 256 samples). (Col 11, lines 65-67, Col 12, lines 1-62)

In regards to He et al. (US Pub No. 2004/0001450 A1), wherein, He discloses an echo canceller system with a near end input low frequency filters 45, 49, in fig.2 to remove unwanted DC components,(Fig.2, [0027]). The echo canceller may also include a monitor and control unit, which may be used to monitor the filter coefficient and gain of the adaptive filter to maintain stability of the echo canceller, estimate pure delay, detect a tone, and inject a training signal. The echo canceller may also include a non-adaptive filter used to reduce the length of the adaptive filter, (abstract).

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The prior art of record particularly fails to teach or render obvious, alone or in combination "An echo canceller which removes a line echo occurring in a hybrid circuit used in broadband voice telephony" and "an offset removal means for removing an offset component produced under an effect of low frequencies from the filter coefficient of the adaptive filter, wherein the offset removal means calculate a mean value, a weighed mean value, or a median value of the filter coefficients in a past predetermined period as an offset component for each filter coefficient, and removes the offset component from the filter coefficient of the adaptive filter".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad K. Islam whose telephone number is 571-270-5878. The examiner can normally be reached on Monday-Friday: 6:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kuntz Curtis can be reached on 571-272-7499. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-7869199 (IN USA OR CANADA) or 571-272-1000.

/Mohammad Islam/  
Patent Examiner  
Art Unit: 2614  
/CURTIS KUNTZ/

Supervisory Patent Examiner, Art Unit 2614